

1/26

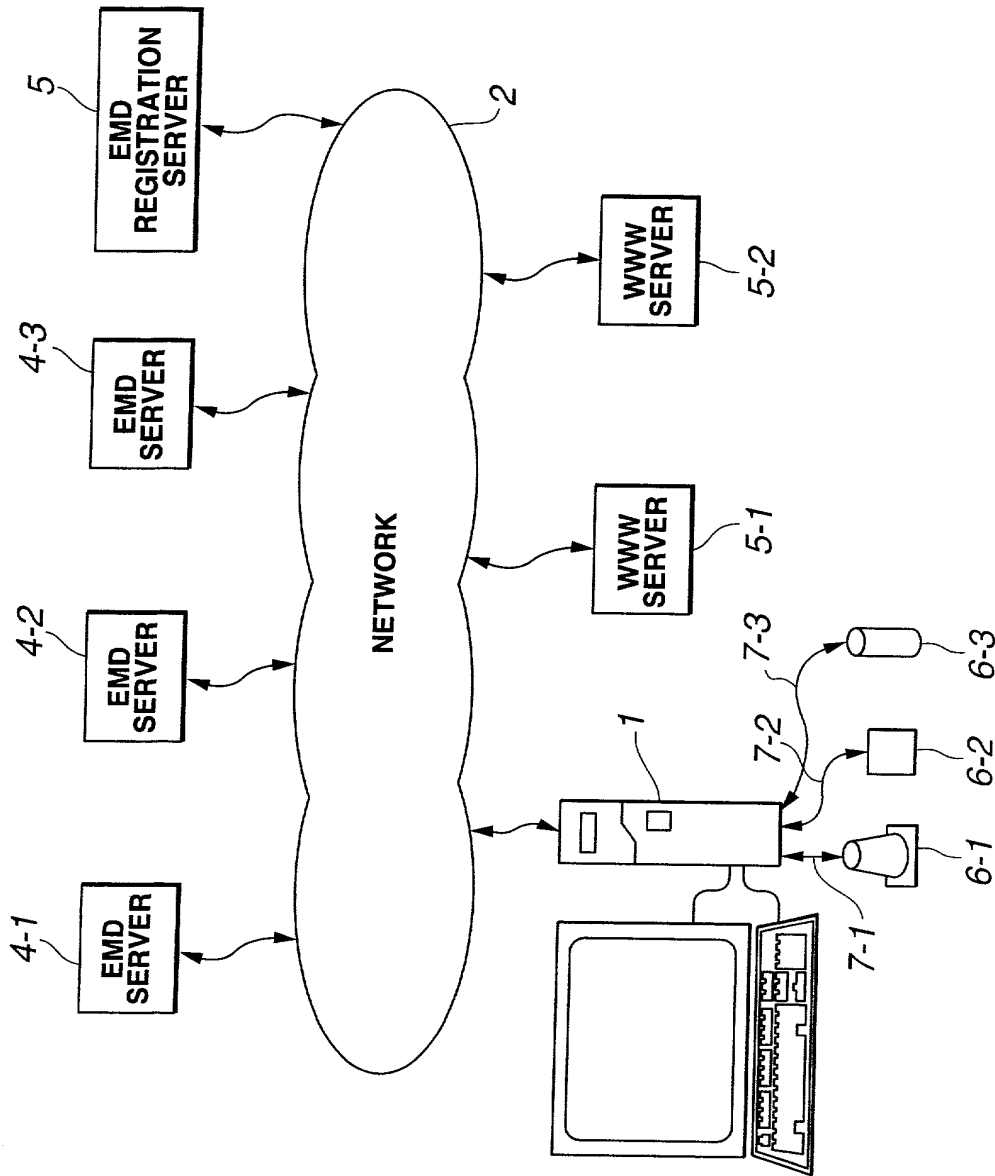


FIG.1

2/26

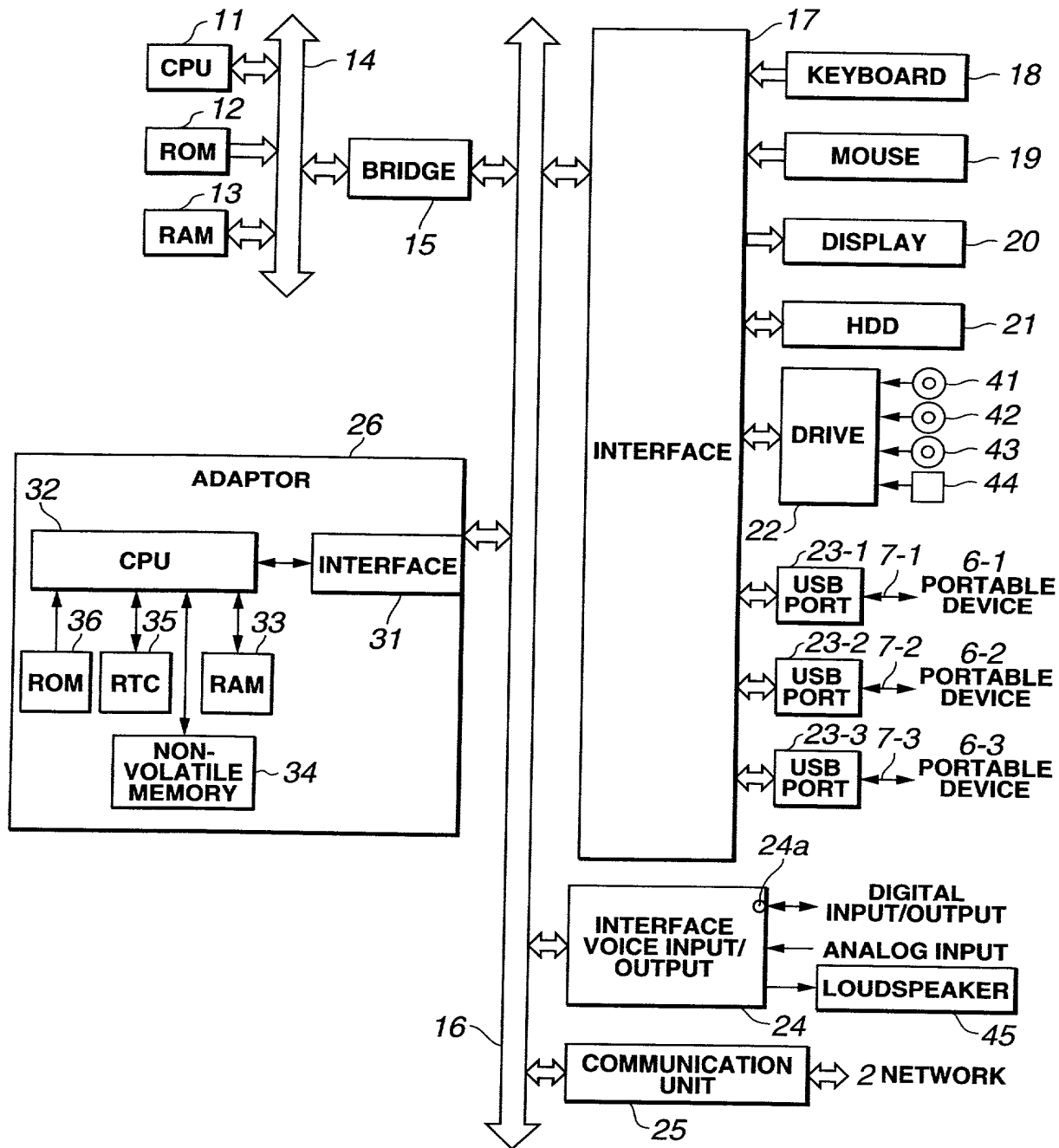


FIG.2

3/26

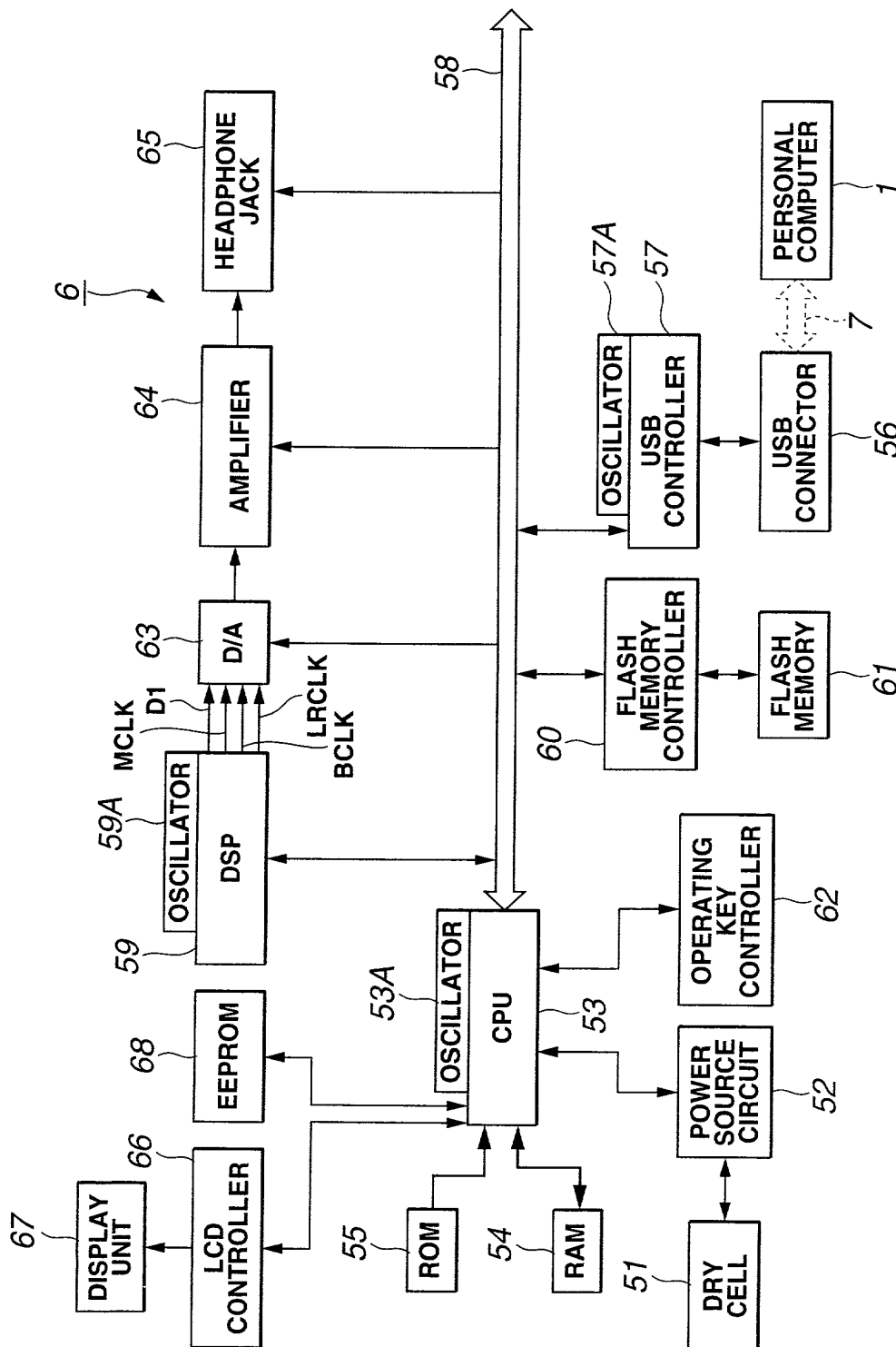


FIG.3

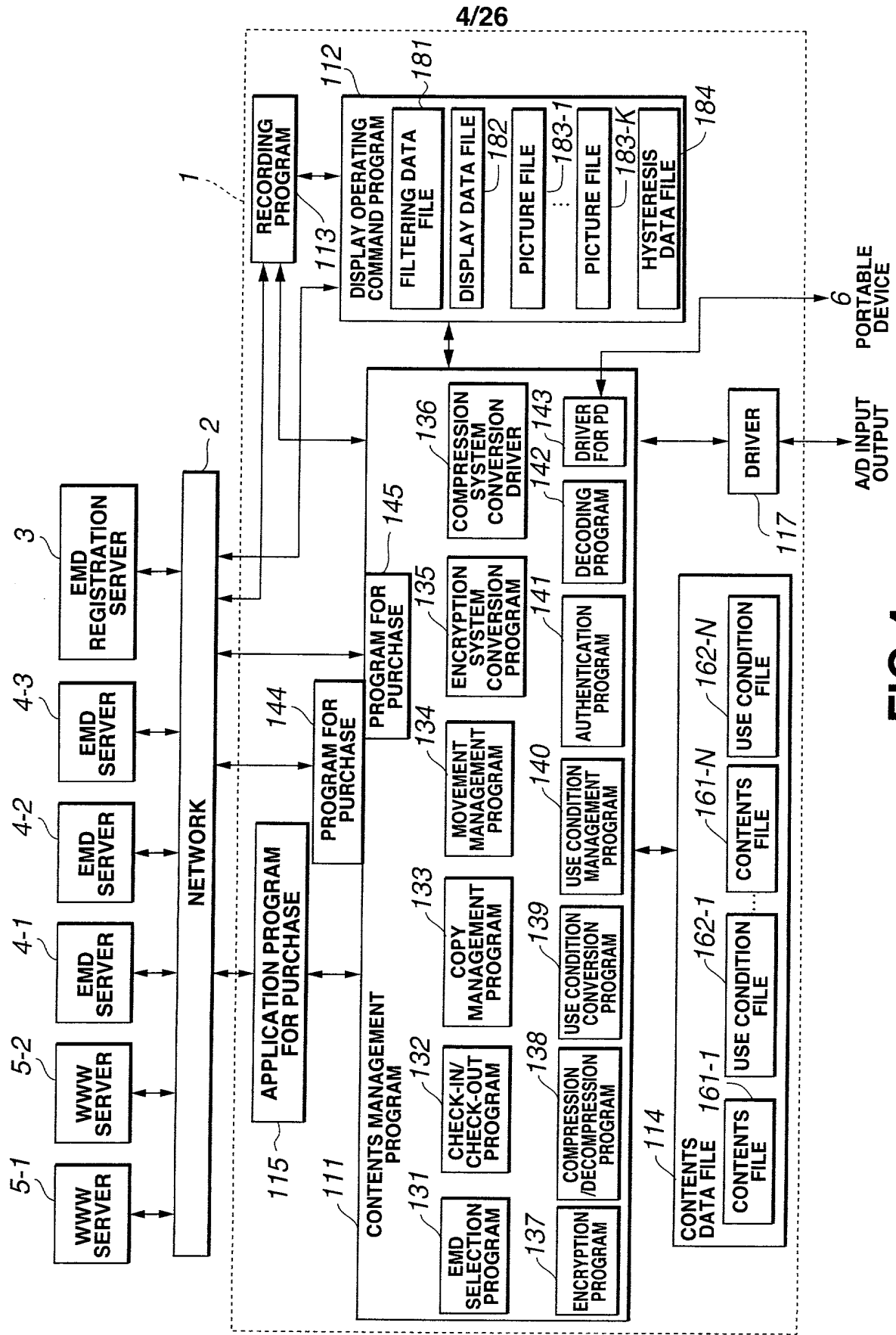
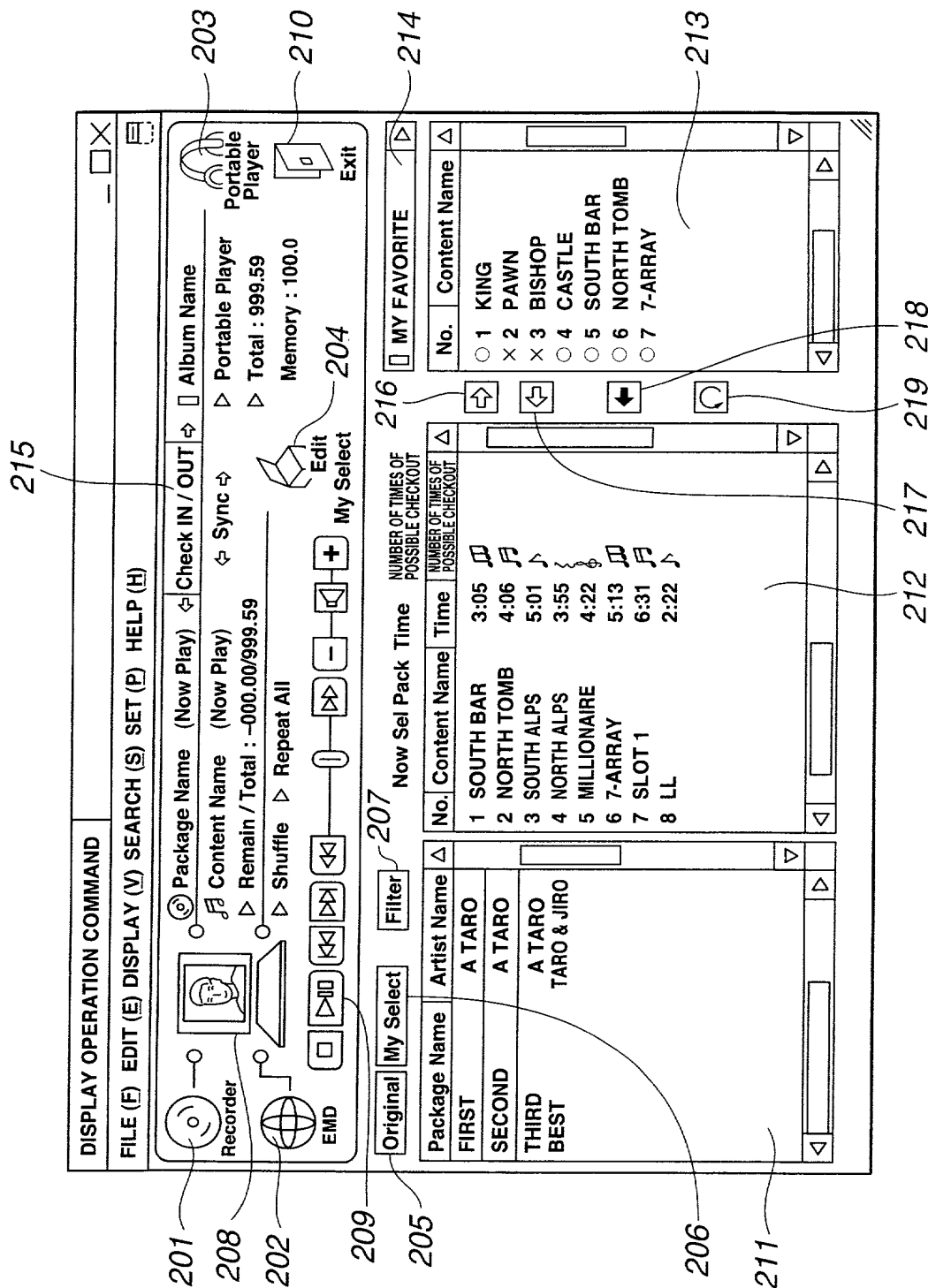


FIG.4

5/26



6/26

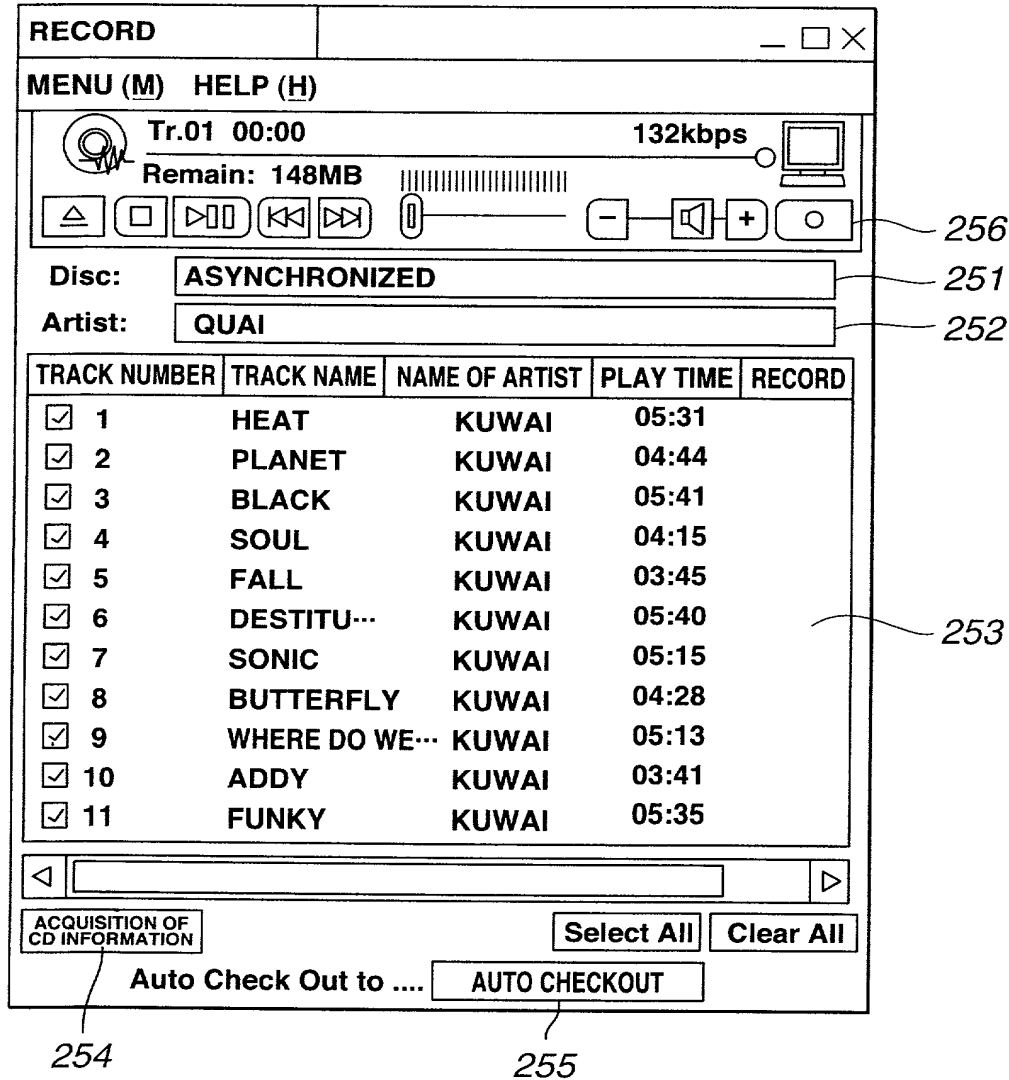


FIG.6

7/26

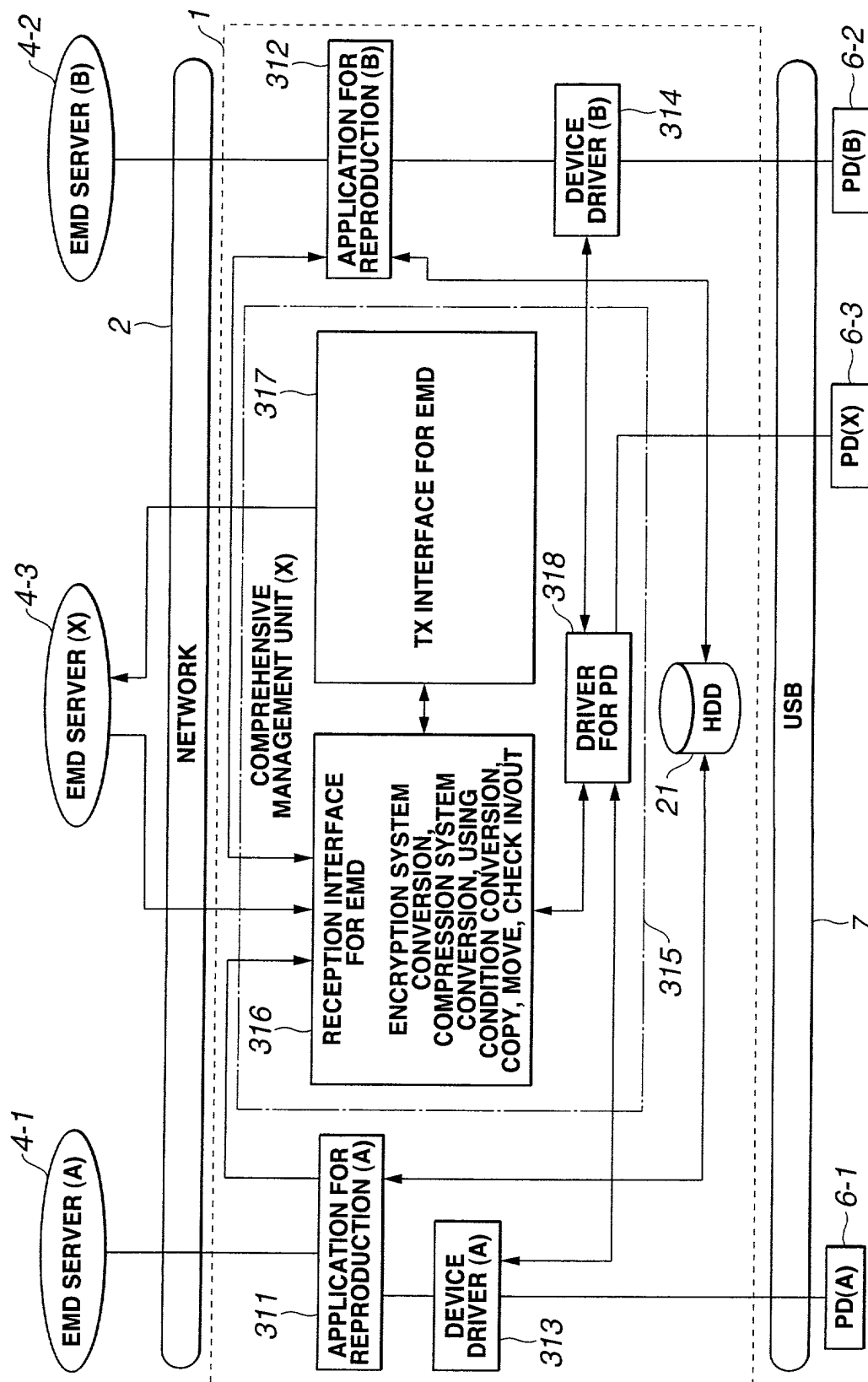


FIG.7

8/26

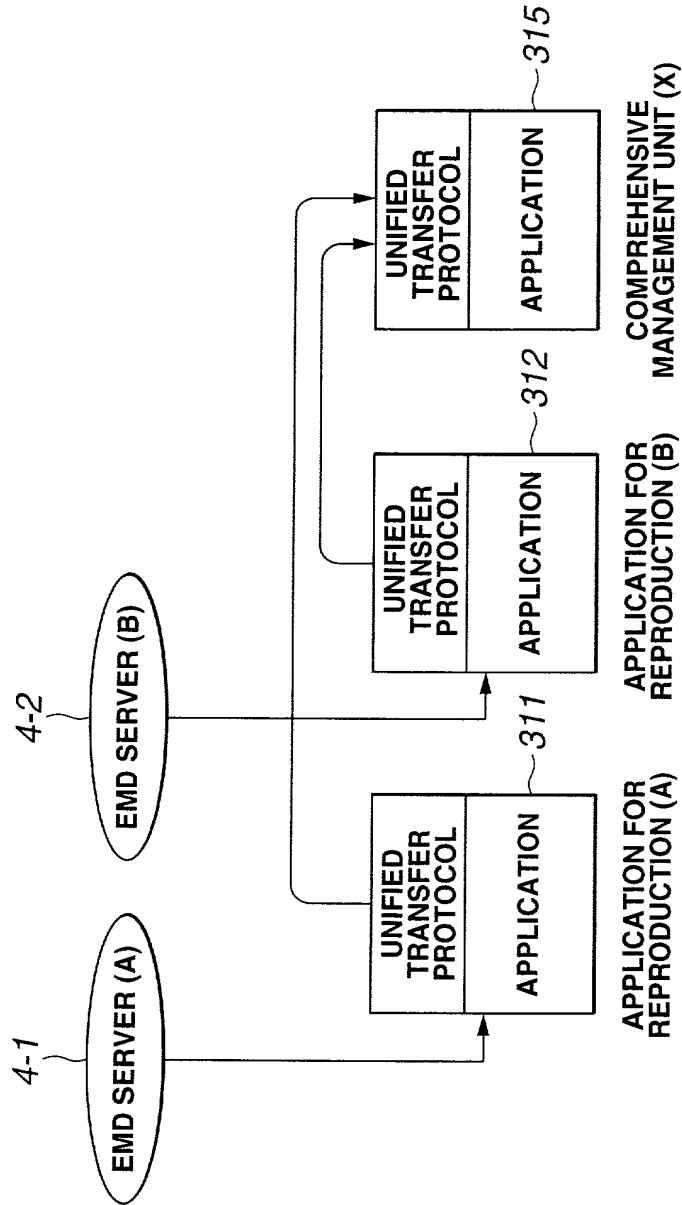


FIG.8

9/26

FIG.9A

POLICY	VALUE
from	99/10/25
to	99/11/24
pay/play	yes/10yen

FIG.9B

CONTENTS
USING CONDITION INFORMATION

INDEX FILE	331
AUTOMATON FILE	332
PARAMETER FILE	333
HYSTERESIS FILE	334

FIG.10

Automaton	341
MAC_{K_C} (Automaton)	342
$Sig_{K_E}^{-1}$ (Automaton)	343
Cert (K_E^1)	344

FIG.11

10/26

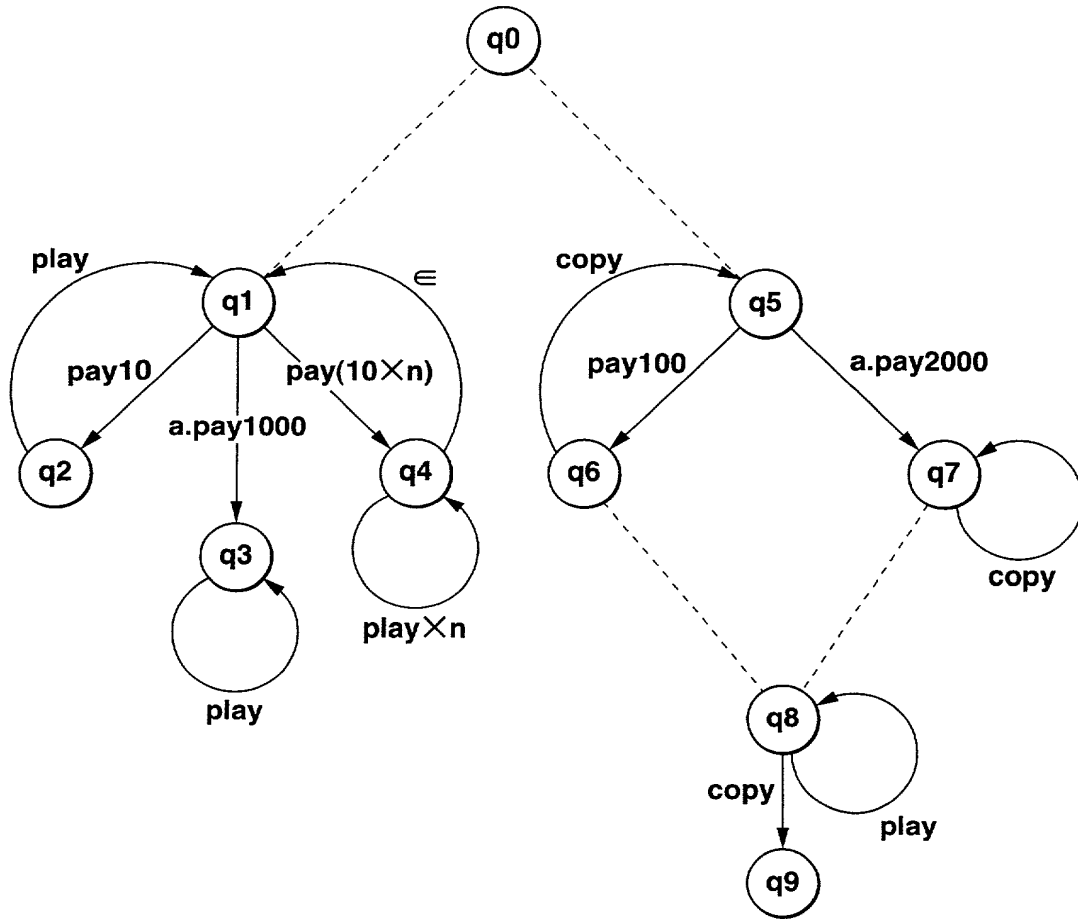


FIG.12



11/26

- < q₁, pay10, q₂ >
- < q₁, a.pay1000, q₃ >
- < q₁, pay(10×n), q₄ >
- < q₂, play, q₁ >
- < q₃, play, q₃ >
- < q₄, play×n, q₄ >
- < q₄, ε, q₁ >
- < q₅, pay100, q₆ >
- < q₅, a.pay2000, q₇ >
- < q₆, copy, q₅ >
- < q₇, copy, q₇ >
- < q₈, play, q₈ >
- < q₈, copy, q₉ >

FIG.13

Entity ID	345
Content ID	346
Automaton Version	347
Variables	348
Tuples	349
Automaton Version	347
Variables	348
Tuples	349
⋮	

FIG.14

12/26

<!ENTITY% event" (

play	1
copy	1
pay-for-play	1
pay-for-copy	1
pay-for-album-play	1
pay-for-album-copy	1
from	1
to	1
null	1

)">

<!ENTITY% command" (

drop	1
dup	1
swap	1
add	1
subtract	1
multiply	1
divide	1
remainder	1
upper	1
lower	1
equal	1
less	1
greater	1
less-equal	1
greater-equal	1
and	1
or	1
not	1
bit-and	1
bit-or	1
bit-xor	1
bit-not	1

)">

FIG.15

13/26

Content playable from 1999/9/1

```
<automaton>

  <!--This usage rule system has one Right Unit.
  Initial state is q1- ->
  <Initial-right-unit state="q1"/>

  <node state = "q1">
    <!--If after 1999/9/1, transfer to q2- ->
    <rule event="from" next-state="q2">
      <arguments>
        <integer value="time:19990901"/>
      </arguments>
    </rule>
  </node>

  <node state = "q2">
    <!-- - playable - ->
    <rule event="play" next-state="q2"/>
  </node>

</automaton>
```

FIG.16

14/26

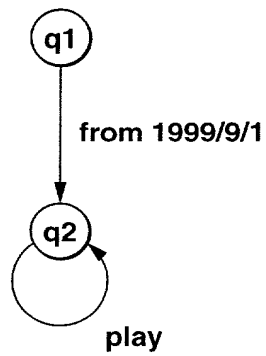


FIG.17

15/26

Content playable until 1999/10/31

<automaton>

<!-- This Usage Rule System has one Right Unit.

Initial state is q2 -->

<Initial-right-unit state="q2"/>

<node state = "q2">

<!--If after 1999/10/31, transfer to end -->

<rule event="to" next-state="end">

<arguments>

<integer value="time:19991031"/>

</arguments>

</rule>

<!-- playable -->

<rule event="play" next-state="q2">

</rule>

</node>

<!-- Unusable state -->

<node state = "end"/>

</automaton>

FIG.18

16/26

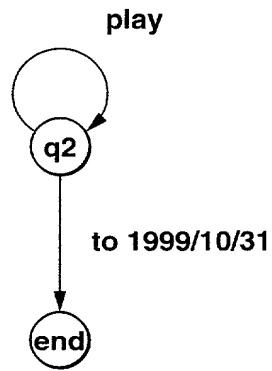


FIG.19

17/26

Content playable 16 times from 1999/9/1 to 1999/10/31

<automaton>

<!--Define counter variables for playable numbers. Initial value is 16 -->

<define-variable name="count" initial-value="16" />

<!-- This Usage Rule System has one Right Unit. Initial state is q1 -->

<initial-right-unit state="q1" />

<node state="q1">

<!--From 1999/9/1 transfer to q2 -->

<rule event="from" next-state="q2">

<arguments>

<integer value="time:19990901" />

</arguments>

</rule>

</node>

<node state="q2">

<!--From 1999/10/31, transfer to end -->

<rule event="to" next-state="end">

<arguments>

<integer value="time:19991031" />

</arguments>

</rule>

<rule event="play" next-state="q2">

<!--Playable only for "count" numbers -->

<arguments>

<variable name="count" />

<command name="load" />

</arguments>

<!--If this rule is selected, the "count" number decrements by one-->

<action>

<variable name="count" />

<command name="load" />

<integer value="1" />

<command name="subtract" />

<variable name="count" />

<command name="store" />

</action>

</rule>

</node>

<!--Unusable state-->

<node state="end" />

</automaton>

FIG.20

18/26

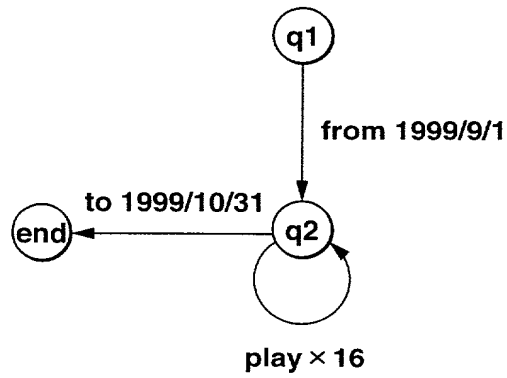


FIG.21

19/26

Content playable less than and/or equal to 16 times

<automaton>

<!--Define valuable counter for playable numbers. Initial value is 16 -->
<define-variable name="count" initial-value="16" />

<!-- Usage Rule System has one Right Unit. Initial state is q2 -->
<initial-right-unit state="q1" />

<node state="q2">

<rule event="play" next-state="q2">

<!--"Count" number of times playable -->

<arguments>

<variable name="count" />

<command name="load" />

</arguments>

<!--If this rule is selected. "count" number decrements by one-->

<action>

<variable name="count" />

<command name="load" />

<integer value="1" />

<command name="subtract" />

<variable name="count" />

<command name="store" />

</action>

</rule>

</node>

</automaton>

FIG.22

20/26

Parameters	351
MAC_{K_C} (Parameters)	352
$Sig_{K_E}^{-1}$ (Parameters)	353
Cert (K_E^1)	354

FIG.23

Parameters	351
EntityID	355
MAC_{K_C} (Parameters)	352
$Sig_{K_E}^{-1}$ (Parameters)	353
Cert (K_E^1)	354

FIG.24

Entity ID	356
Contents ID	357
Contents	358

FIG.25

21/26

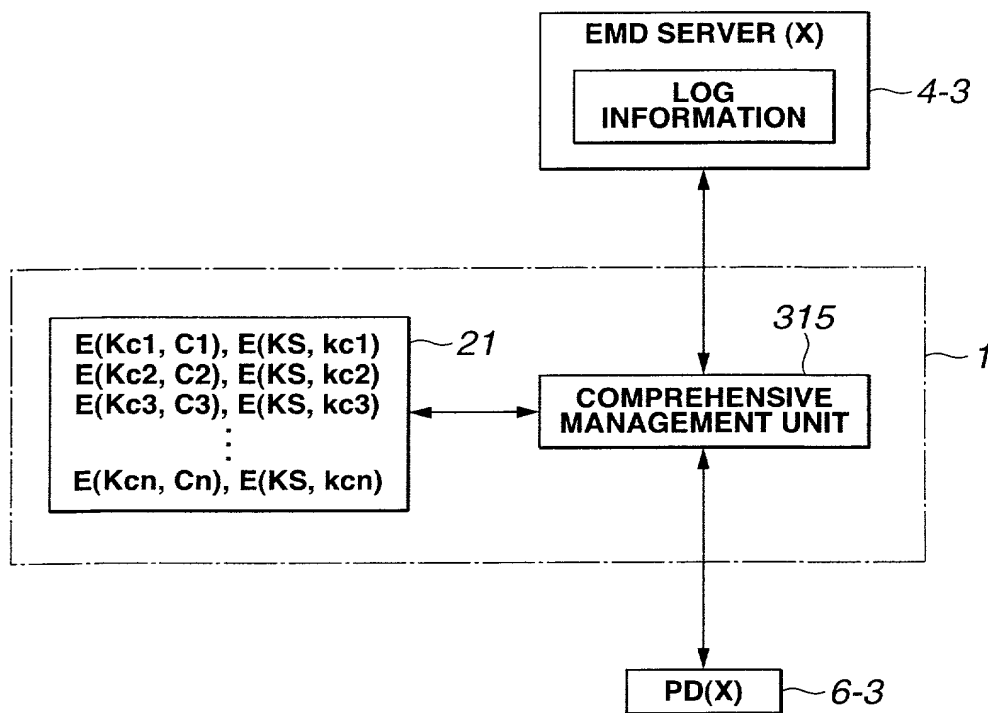


FIG.26

22/26

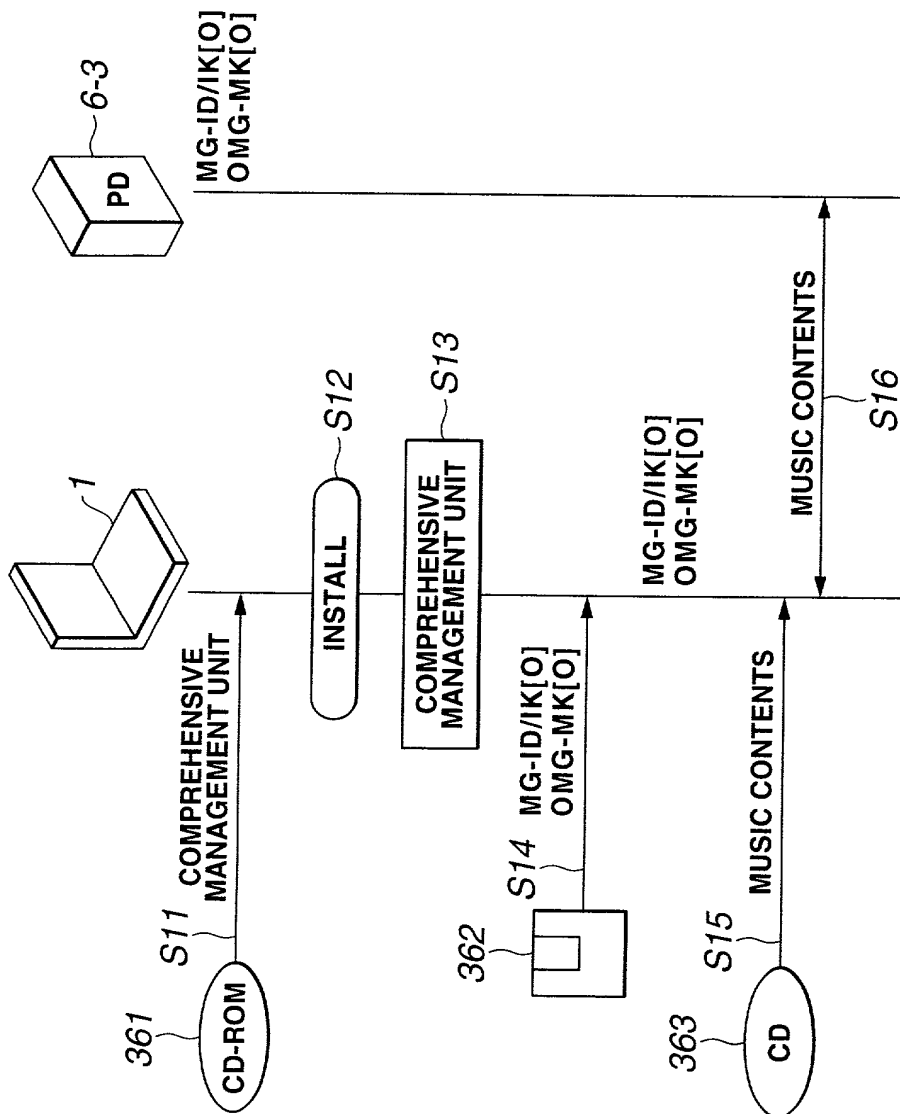


FIG.27

23/26

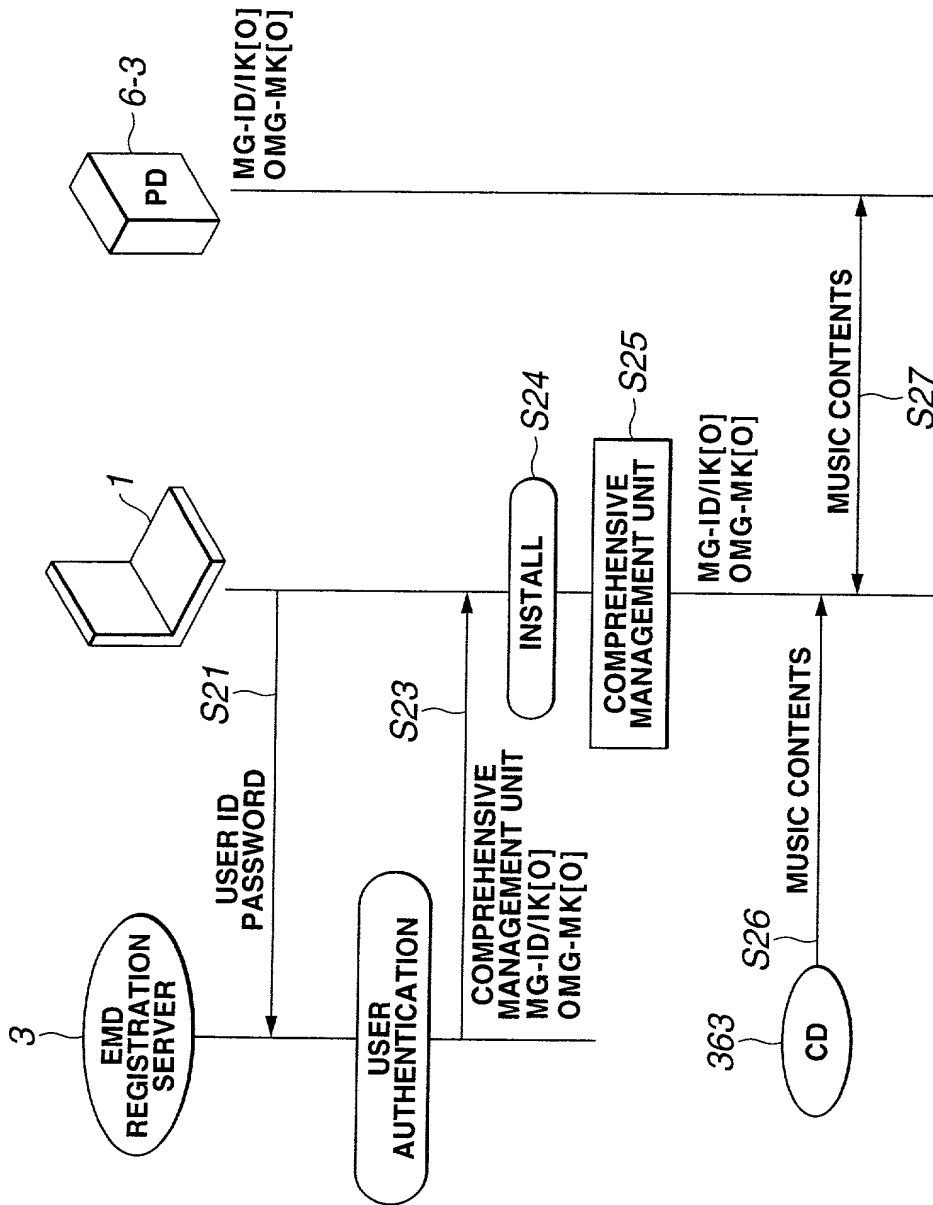


FIG. 28

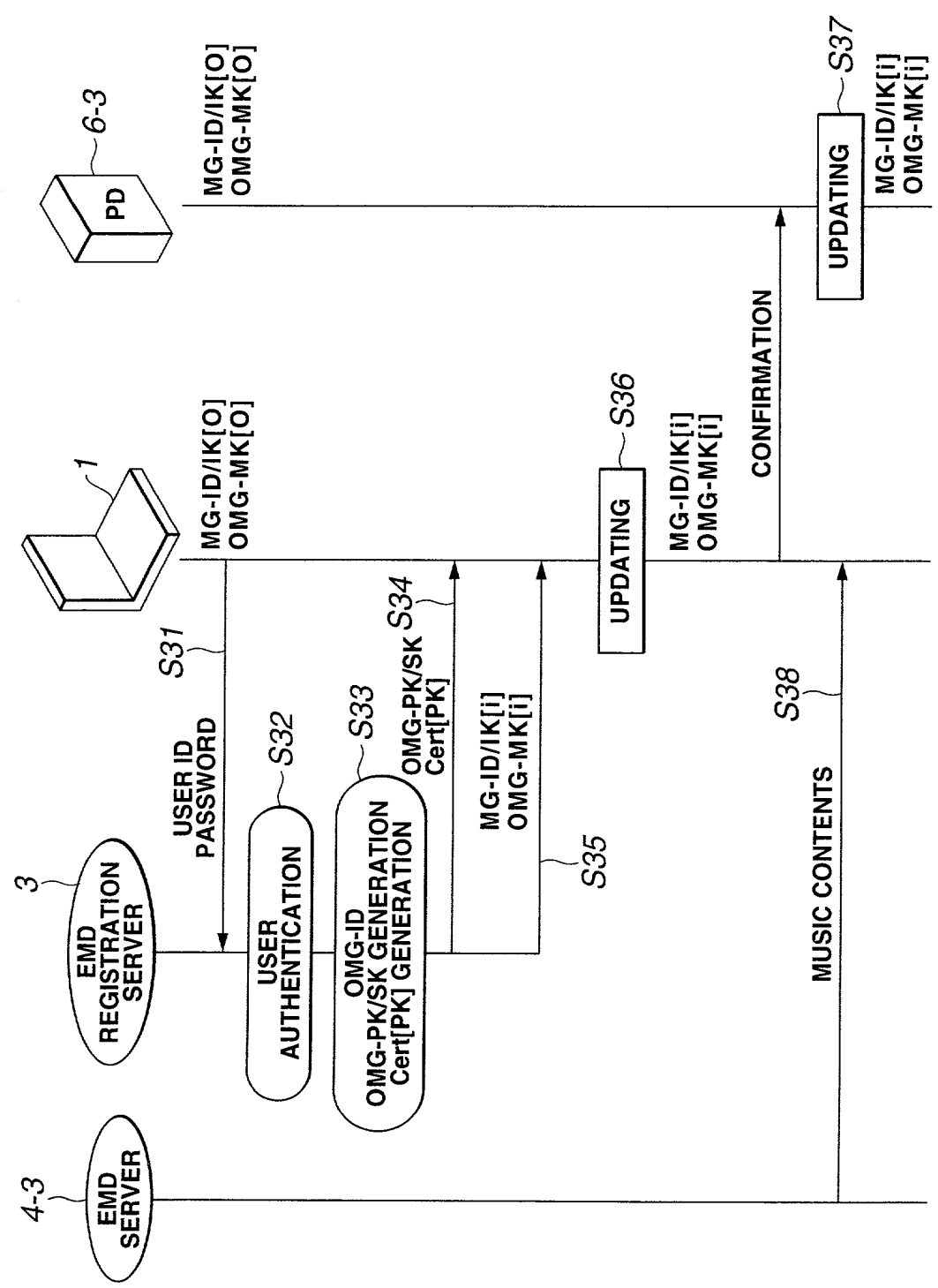


FIG.29

25/26

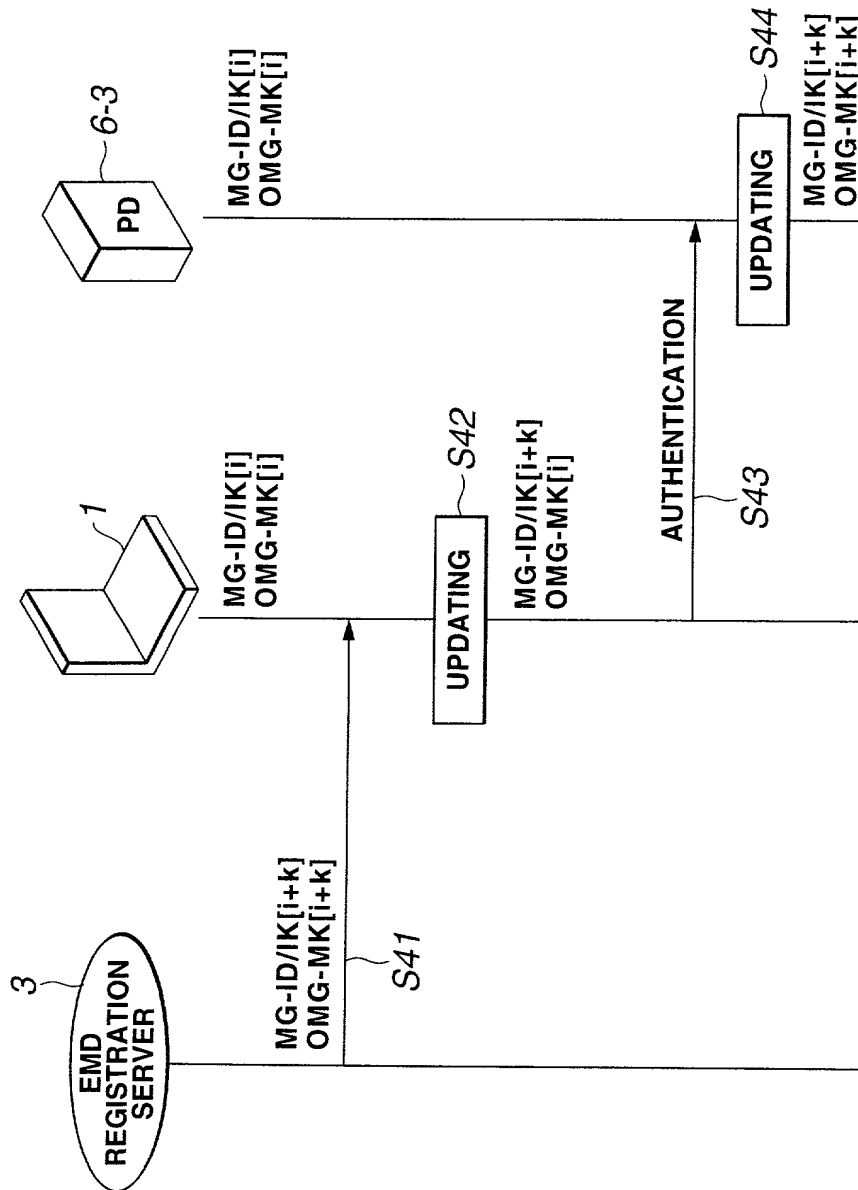


FIG.30

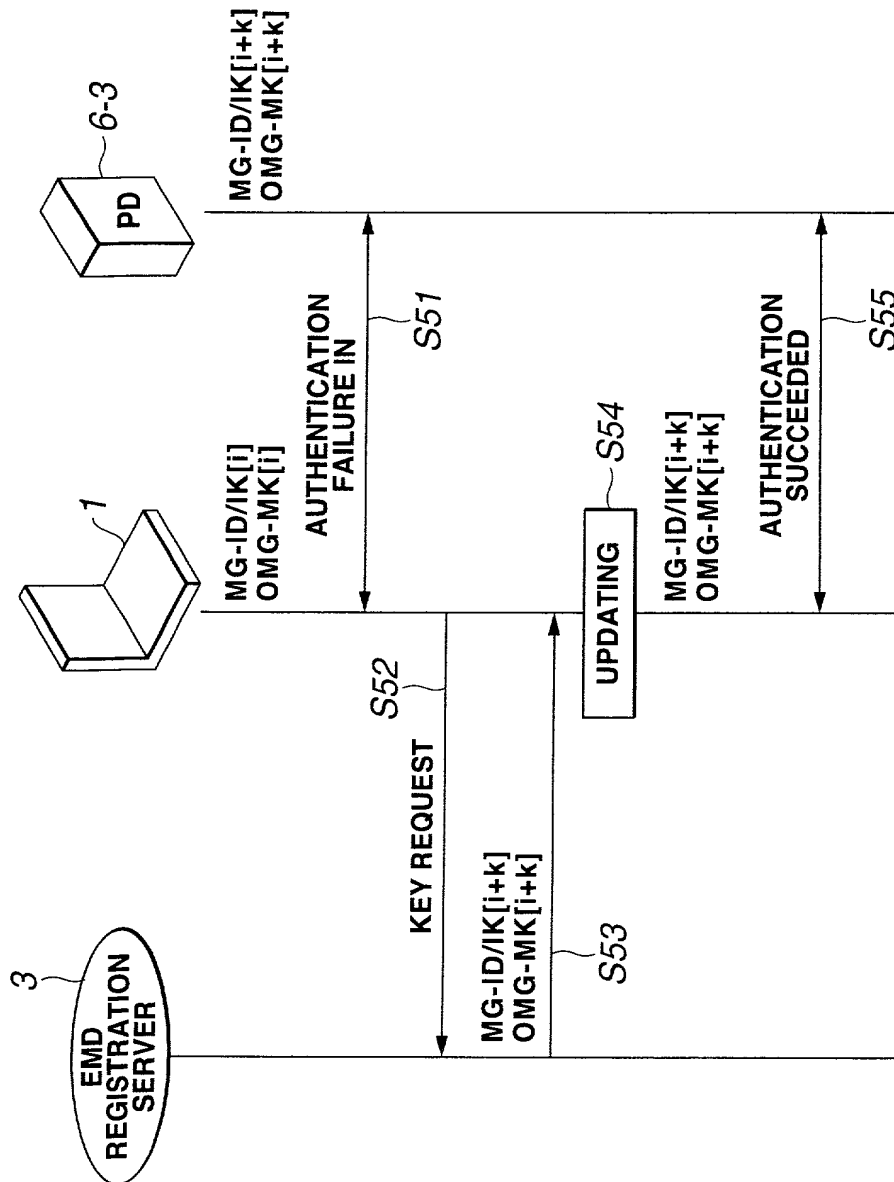


FIG.31